

Remarks

In response to the Office Action mailed August 27, 2002, applicants submit the above amendments and the following remarks. Reconsideration of the application is respectfully requested.

In paragraphs 2 and 3 of the Office Action, the Examiner rejects all the pending claims under the judicially created doctrine of obviousness-type double patenting. The Examiner further indicates that this rejection may be overcome by filing an appropriate terminal disclaimer. In response, applicants submit herewith an appropriate terminal disclaimer for the application. Submission of the terminal disclaimer does not represent acquiescence in the Examiner's rejections but is made to expedite prosecution of the present application.

In paragraphs 4 and 5 of the Office Action, the Examiner rejects claims 1-22 as anticipated by Hemphill et al. ("Hemphill"). For the reasons described below, applicants respectfully traverse this rejection at least as to dependent claims 10 and 20.

Hemphill discloses a browser interface which he calls a "Speech-Aware Media" or "SAM." SAM is adapted to receive spoken words as input and navigate to selected Web pages in accordance with four specific navigation modes.

In the first mode, SAM is adapted to respond to certain "speakable commands" such as page down, back, and help. SAM is further adapted to display all such "speakable commands" whenever the user utters "Show me my speakable commands."

In the second mode, SAM is adapted to respond to specific utterances defined by the user such as "How does the weather look today?" or "What's the latest news?" These defined utterances are collectively referred to as the "speakable hotlist."

In the third mode, SAM is adapted to determine when a user speaks a link shown on the screen of a currently displayed Web page and to navigate to a new Web page represented by that link. Hemphill refers to this functionality as "speakable links."

SAM's fourth navigation mode, is referred to as "smart pages." With respect to this mode, Hemphill discloses:

Table 1 illustrates the interaction between SAM and the weather smart page []. First, the user utters "How's the weather look today?" from the speakable hotlist (step 1), resulting in retrieval and display of the desired smart page (step 2 []). The browser observes the grammar link relationship in the smart page (step 3) and asks the Web for the grammar using the specified URL. SAM then dynamically adds the weather grammar to the recognizer as described previously. . . .

After looking at the map and reading the page instructions, the user decides to utter "Chicago, Illinois" (step 4) to get more detail for that city. **Recognizing that this string belongs to the smart page grammar**, SAM sends a directive with arguments to the browser, which then passes it on to the Web (step 5). . . .

Hemphill at p. 77 (all emphasis in this response has been added unless otherwise noted).

Thus, the disclosed SAM interface is a very limited one capable only of recognizing particular command strings. It does not utilize context to provide superlatives or comparisons as in the method and system of claims 10 and 20.

More specifically, the claims 10 and 20 each recite:

providing at least one of a superlative and a comparison of the first information **based on the context information**

Preferred embodiments illustrating this claim feature are discussed in the specification at p. 10, ll. 10-22. In one disclosed example, the user may say “I would like the **cheapest** one.” In that case, the context is consulted to identify a set of items previously communicated to the user and to select a superlative, in this case the **cheapest** item in the set.

In another example, the user may say “I would like something that costs **less than** that.” In that case, the context is consulted to see the current price range in context and items may be selected that are **less** expensive by comparison to the current price range.

As noted, however, Hemphill’s SAM interface recognizes only specific command strings; it does not utilize context to provide superlatives or comparisons. Thus, for example, although Hemphill discloses that the phrase “What’s the **latest** news” may represent a defined user command, the SAM interface does not parse this user command, identify the term “latest” as a superlative, and interpret it in view of previous user statements or other dialogue context. Rather, this command, like all SAM commands, is simply “hard-wired” into the interface. When a user speaks the command, it is recognized as a defined string and the system responds by displaying particular Web pages. For at least this reason, it is respectfully submitted that claims 10 and 20 are allowable over Hemphill.

Claims 2-9 and 12-19 and 21 depend respectively from independent claims 10 and 20. Accordingly, it is respectfully submitted that these claims are also allowable over Hemphill for at least reasons analogous to those described in connection with claims 10 and 20 above.

The above amendments do not represent acquiescence in the Examiner’s rejections and are made to expedite prosecution of the present application. Applicant reserves the right to resubmit some or all of the original claims in, for example, a continuation application. It is also respectfully submitted that the above redrafting of claims 10 and 20 into independent form is not a narrowing amendment pursuant to *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 122 S. Ct. 1831 (2002) (see also *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 234 F.3d 558 (Fed. Cir. 2000) (en banc)), since it does not change the scope of those claims.

This Response was originally due on November 27, 2002. Accordingly, a Petition for Extension of Time (three months) is filed herewith rendering this Response timely. Please charge the fee required for this Petition and the Terminal Disclaimer, as well as any other necessary fees due in connection with this Response, to Pennie & Edmonds LLP Deposit Account 16-1150.

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Respectfully submitted,

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Appendix A
MARKED VERSION OF THE AMENDED CLAIMS
U.S. PATENT APPLICATION SERIAL NO. 09/497,493
(deleted text is indicated by brackets, added text is indicated by underlining)

2. (amended) The method of claim [1] 10 further comprising:
incorporating content information generated based on the second information into a
web page.
4. (amended) The method of claim [1] 10 further comprising:
generating grammatical data for the first statement;
generating one or more parsing tokens based on the grammatical data; and
storing the parsing tokens as part of the context information.
6. (amended) The method of claim [1] 10 further comprising:
identifying linguistic structures in the second statement based on the context
information.
9. (amended) The method of claim [1] 10 further comprising:
storing and updating the context information each time a new statement in the natural
language is received.
10. (amended) A human-machine communication method comprising:
receiving a first statement in a natural language from a user;
generating first information based on the first statement;
storing context information of at least one of the first statement and the first
information;
optionally generating a question to be presented to the user in the natural language
based on the context information;
receiving a second statement in the natural language from the user;
generating second information based on the second statement and the context
information; and
[The method of claim 1 further comprising:]

providing at least one of a superlative and a comparison of the first information based on the context information, wherein the first information includes a plurality of items that can be compared with each other.

12. (amended) The system of claim [11] 20 further comprising:

a client computer configured to receive a plurality of statements from the user and configured to forward the received plurality of statements to the server computer.

13. (amended) The system of claim [11] 20 wherein the server computer further comprises:

a knowledge database configured to provide language processing information, wherein the server computer is further configured to generate a plurality of parsing tokens based on the first statement and the language processing information, and

wherein the memory bank is further configured to store the parsing tokens as part of the context information.

16. (amended) The system of claim [11] 20 wherein the server computer is further configured to identify linguistic structures in the second statement based on the context information.

19. (amended) The system of claim [11] 20 wherein the server computer is further configured to store and update the context information each time a new statement in the natural language is received by the input device.

20. (amended) A human-machine communication system comprising:

a server computer comprising:

an input device configured to receive a first statement in a natural language from a user, wherein the server computer is configured to generate first information based on the first statement;

a memory bank configured to store context information of at least one of the first statement and the first information;

the input device further configured to receive a second statement in the natural language from the user, wherein the server computer is further configured to optionally

generate a question to be presented to the user in the natural language based on the context information and configured to generate second information based on the second statement and the context information;

[The system of claim 11]

wherein the server computer is further configured to provide at least one of a superlative and a comparison of the first information based on the context information, wherein the first information includes a plurality of items that can be compared with each other.

21. (amended) The system of claim [11] 20 wherein the server computer further comprises:
an output controller configured to dynamically generate a web page at a client computer based on at least one of the first information and the second information.

Appendix B
THE CLAIMS THAT WILL BE PENDING
UPON ENTRY OF THE PRESENT AMENDMENT
U.S. PATENT APPLICATION SERIAL NO. 09/497,493

2. The method of claim 10 further comprising:
incorporating content information generated based on the second information into a
web page.
3. The method of claim 2 further comprising:
dynamically generating the web page based on the content information.
4. The method of claim 10 further comprising:
generating grammatical data for the first statement;
generating one or more parsing tokens based on the grammatical data; and
storing the parsing tokens as part of the context information.
5. The method of claim 4 further comprising:
adding, modifying or removing the stored parsing tokens based on the second
statement.
6. The method of claim 10 further comprising:
identifying linguistic structures in the second statement based on the context
information.
7. The method of claim 6 further comprising:
identifying an antecedent to a pronoun in the second statement.
8. The method of claim 7 further comprising:
disambiguating homonym in the second statement.
9. The method of claim 10 further comprising:
storing and updating the context information each time a new statement in the natural
language is received.
10. A human-machine communication method comprising:
receiving a first statement in a natural language from a user;
generating first information based on the first statement;

storing context information of at least one of the first statement and the first information;

optionally generating a question to be presented to the user in the natural language based on the context information;

receiving a second statement in the natural language from the user;

generating second information based on the second statement and the context information; and

providing at least one of a superlative and a comparison of the first information based on the context information, wherein the first information includes a plurality of items that can be compared with each other.

12. The system of claim 20 further comprising:

a client computer configured to receive a plurality of statements from the user and configured to forward the received plurality of statements to the server computer.

13. The system of claim 20 wherein the server computer further comprises:

a knowledge database configured to provide language processing information, wherein the server computer is further configured to generate a plurality of parsing tokens based on the first statement and the language processing information, and

wherein the memory bank is further configured to store the parsing tokens as part of the context information.

14. The system of claim 13 wherein the server computer is further configured to add, modify or remove the stored parsing tokens in the memory bank based on the second statement.

15. The system of claim 13 wherein the server is further configured to generate the plurality of parsing tokens based on, in part, timing cues of the first statement.

16. The system of claim 20 wherein the server computer is further configured to identify linguistic structures in the second statement based on the context information.

17. The system of claim 16 wherein the server computer is further configured to identify an antecedent to a pronoun in the second statement.

18. The system of claim 16 wherein the server computer is further configured to identify a disambiguating homonym in the second statement.

19. The system of claim 20 wherein the server computer is further configured to store and update the context information each time a new statement in the natural language is received by the input device.

20. A human-machine communication system comprising:

a server computer comprising:

an input device configured to receive a first statement in a natural language from a user, wherein the server computer is configured to generate first information based on the first statement;

a memory bank configured to store context information of at least one of the first statement and the first information;

the input device further configured to receive a second statement in the natural language from the user, wherein the server computer is further configured to optionally generate a question to be presented to the user in the natural language based on the context information and configured to generate second information based on the second statement and the context information;

wherein the server computer is further configured to provide at least one of a superlative and a comparison of the first information based on the context information, wherein the first information includes a plurality of items that can be compared with each other.

21. The system of claim 20 wherein the server computer further comprises:

an output controller configured to dynamically generate a web page at a client computer based on at least one of the first information and the second information.